

CLAIMS

What is claimed is:

1. A multi-layer ceramic capacitive device comprising:

a plurality of first electrode plates with a via centrally located therein, said via having a first diameter, wherein said first electrode plates have a circular opening having a second diameter therein and wherein said circular opening surrounds said via;

a plurality of second electrode plates with a via centrally located therein, said via having said first diameter, wherein said second electrode plates have a perimeter region of said plates removed and wherein said pluralities of first and second electrode plates are interleaved to form a capacitive stack;

a first terminal surrounding the perimeter of the capacitive stack and in electrically connection with each of said plurality of first electrode plates; and

a second terminal in said via and in electrical connection with each of said plurality of second electrode plates.

2. A multi-layer ceramic capacitive device as in claim 1, wherein said device is generally square-shaped.

3. A multi-layer ceramic capacitive device as in claim 2, wherein said second terminal is formed by filling said via with solder.

4. A multi-layer ceramic capacitive device as in claim 2, wherein said second terminal is said via.

5. An multi-layer ceramic capacitive array mounted to a circuit board having a plurality of contacts in a plurality of rows, said plurality of contacts within each of said plurality of rows having an alternating pattern of polarity, said array comprising:

a plurality of multi-layer ceramic capacitive devices wherein each of said devices have a first terminal surrounding the perimeter of said capacitive device and in electrical connection with each of a plurality of first electrode plates and a second terminal centrally located in said capacitive device in a through-via and in electrical connection with each of a plurality of second electrode plates, said first and second electrode plates being interleaved to form said capacitive device;

wherein said plurality of capacitive devices are mounted to said circuit board in a diamond arrangement such that said first terminal is in electrical connection with four of said plurality of contacts, one each at the corners of the device and wherein said second terminal is in electrical connection with one of said plurality of contacts of an opposing polarity.

6. An multi-layer ceramic capacitive device mounted to a circuit board having a plurality of contacts in a plurality of rows, said plurality of contacts within each of said plurality of rows having an alternating pattern of polarity, said device comprising:

a plurality of first electrode plates with a plurality of via located therein;

a plurality of second electrode plates with a plurality of via located

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therein, said pluralities of first and second electrode plates interleaved to form said capacitive device wherein said plurality of via in said first electrode plates, said plurality of via in said second electrode plates and said plurality of contacts on said circuit board are aligned;

a plurality of first terminals corresponding to alternating ones of said plurality of contacts in each of said plurality of rows such that all of said first terminals have the same polarity; and

a plurality of second terminals corresponding to alternating ones of said plurality of contacts in each of said plurality of rows such that all of said second terminals have the same polarity which opposes the polarity of said first terminals.

7. An multi-layer ceramic capacitive device mounted to a circuit board having a plurality of contacts in a plurality of rows, said plurality of contacts within each of said plurality of rows having an alternating pattern of polarity as in claim 6, wherein said device is generally rectangular.